

CLAIMS

- 1 1. A sectional door movable between a closed vertical position and an open
2 horizontal position comprising, a plurality of panels having a front facer and a
3 rear surface, first and second joints spaced and joined by said front facer and
4 interconnecting said front facer and said rear surface, said first and second joint
5 members being hinged to permit pivotal movement between adjacent of said
6 panels, said first joint having primarily substantially planar surfaces oriented
7 substantially perpendicular to said front facer and said second joint member being
8 a substantially curvilinear surface, whereby a strong pinch resistant construction
9 of said door is provided.
- 1 2. The sectional door of claim 1, wherein said first joint has a raised portion located
2 intermediate said front facer and said rear surface of said panels, said raised
3 portion contacting said second joint to bear a portion of the weight of an adjacent
4 one of said panels.
- 1 3. The sectional door of claim 2, wherein said raised portion tangentially contacts
2 said surface of said second joint when said door is in the closed vertical position.
- 1 4. The sectional door of claim 1, wherein said second joint has a projecting nose
2 which is spaced no more than .2 inch from said first joint during movement
3 between the closed vertical position and the open horizontal position.
- 1 5. The sectional door of claim 1, said surface of said second joint is a generally
2 concave surface receiving said first joint.
- 1 6. The sectional door of claim 1, wherein said second joint is substantially an arc of
2 a circle.

- 1 7. The sectional door of claim 1 further comprising, a downwardly extending nose
2 joining said front facer of the door to said second joint, and wherein said first
3 joint defines an offset portion near said front facer of said panels adapted to
4 receive said nose when said door is in the closed vertical position.
- 1 8. The sectional door of claim 7 further comprising, a heel portion formed on said
2 second joint near said rear surface of said panels, and a recessed offset formed on
3 said first joint defining a clearance between said first and second joints near said
4 rear of said panels.
- 1 9. The sectional door of claim 1, wherein said first joint is integrally formed on a top
2 surface of said panels and said second joint is integrally formed on a bottom
3 surface of said panels.
- 1 10. The sectional door of claim 1 further comprising, a pair of end stiles attached at
2 the ends of said panels, said stiles receiving roller carriers adapted to support
3 rollers on said panels.
- 1 11. The sectional door of claim 10, wherein said roller carriers are constructed of a
2 plastic material.
- 1 12. The sectional door of claim 10 further comprising, a hinge receiver formed on
2 said roller carriers, and a hinge having a first end pivotably received within said
3 hinge receiver and a second end attached to an adjacent one of said panels,
4 whereby said hinge pivotally connects adjacent of said panels.
- 1 13. The sectional door of claim 12, wherein said hinge receiver includes an arcuate
2 slot and said first end of said hinge is arcuate such that said first end of said hinge
3 travels within said slot during pivotal movement of said hinge.